`F.S.M. Traffic Study Guidelines (12/07)
Checklist for Application Acceptance

Loudoun County Virginia
Office of Transportation Services

Application Name: HS7/ES Loudoun County School Board **Date:** 3/12/10
Application Type: ZMAP/SPEX **Reviewer:** Bruce R. Phillips
# of Guidelines Satisfied: 13 **of 13**
Accept or Reject: Accept **Comment:**

(1) **Study Area**: Roadways internal or adjacent to the development site shall be included in the traffic study. The study area should be defined at the scoping meeting and as a guideline should include other external roads to the extent that the project's generated traffic is anticipated to exceed 10 percent of the road's current/existing traffic volumes (at the time of application).

Does Study Meet Guidelines? yes Comments: See pages 6+7

(2) **Traffic Count Locations**: Traffic counts are required on the adjacent roads, the adjacent intersections beyond the project's frontage on adjacent roads in the study area. The AM/PM peak period traffic counts shall not be more than twelve (12) months old at the time of the application submission. Twenty-four (24) hour weekday traffic counts are also required for roadway segments.

Does Study Meet Guidelines? yes Comments: See pages 6, 11 and 12

(3) **Trip Generation**: As a general guide to vehicle trip generation, the latest edition of the Institute of Transportation Engineer's (I.T.E.). Trip Generation Report shall be used. These rates may be supplemented by additional information provided by the County. If the applicant chooses to use different rates, they shall be documented and agreed to at the scoping meeting prior to their use in the traffic analyses. Primary trip reductions associated with passby trips and methodologies for trip reductions associated with passby trips shall be discussed and agreed upon at the scoping meeting.

Does Study Meet Guidelines? yes Comments: See page 29

(4) **Traffic Volume Projections**: The traffic study shall include an agreed upon build out year and provide existing and projected traffic volumes, with and without the subject project, for Average Daily Traffic (ADT), as well as AM and PM peak hours. The peak hour of the project/individual land use(s) (as given in the ITE Trip Generation Report) should be added to the corresponding AM/PM existing peak hour of the adjacent roadway traffic volumes (to show the worst case scenario), if the peak hour of the project/individual land use(s) for the generator is greater than the peak hour of the adjacent roadway (per ITE Trip Generation Report). The existing peak hour of traffic on the roads adjacent to the subject project site shall be identified. These traffic volumes shall be provided at roadway intersections and commercial or private accessways/entrances.

Does Study Meet Guidelines? Yes Comments: See pages 9, 13, 23, 34-35

Turn Lane Analysis, Signal Warrant Analysis, Queuing Analysis, Pedestrian Access are provided on pages 97-102

(5) **LOS Analysis**: : Level of Service (LOS) calculations for existing and projected conditions, with and without the subject project, for highway segments, intersection legs, and entrances shall be provided. Calculations shall be in accordance with the Highway Capacity Manual (HCM) and/or the Highway Capacity Software (HCS), or as may be agreed at the scoping meeting. Traffic volumes and LOS information shall be provided for each phase of development, to include conditions at date of project completion. Projections shall also be made for date of completion plus ten (10) years or to an agreed upon forecast year.

Does Study Meet Guidelines? _____ Comments: _____

See pages 14, 15, 24, 25, 36-37, 38, 49-53

(6) **Minimum Roadway/Intersection LOS Standards**: Recommendations for phased improvements to the road network links in order to maintain an acceptable LOS (minimum LOS "D") shall be provided. For each phase up to and including buildout, a minimum approach and overall LOS "D" at intersections shall apply.

Does Study Meet Guidelines? Yes Comments: See pages vii (Summary) See Conclusions (pages 102-105)

(7) **Background Traffic Assumptions**: Assumptions which determine projected background traffic, including through traffic growth rate to be applied on roadway links, shall be confirmed at the scoping meeting. The sources for determining future traffic projections will include one or more of the following:

- The Loudoun County Growth Summary or similar documents from Loudoun County.
- The Loudoun County transportation model which incorporates COG's Cooperative Forecasts for Loudoun County.
- Approved developments in the vicinity of the proposed development.

Specific other approved development names and respective development square footage or residential units in the study shall be provided.

Does Study Meet Guidelines? yes Comments: See pages 20 and 21
See also Figure 7

(8) **Traffic/Trip Distribution**: Directional trip distribution information shall be provided for project entrances and collector and arterial intersections within the study area for the phases and categories (e.g., residential, office, retail, industrial and institutional) of development.

Does Study Meet Guidelines? yes Comments: See pages 29, 30-32 and 33

(9) **LOS Calculations Assumptions**: Traffic counts and LOS worksheets and projected traffic volume LOS analyses, using agreed upon analysis techniques, including existing AM/PM peak hour signal timing, shall be included as a part of the traffic study.

Does Study Meet Guidelines? _____ Comments: _____

(10) **Mode Choice**: Modal split information shall be provided for the phases of the analysis, with sources of information identified (e.g., COG model).

Does Study Meet Guidelines? yes Comments: N.A.

(11) **Safety Locations**: Road safety hazards, as identified by the ISTEA set-aside funding criteria and/or as identified by the County at the scoping meeting, within the study area shall be analyzed for all roadway links and intersections in the traffic study.

Does Study Meet Guidelines? Yes Comments: See pages 9-10

(12) **Traffic Mitigation Measures**: If trip reduction factors are used in the study, measures necessary to implement the reduction must be specified, with supporting documentation.

Does Study Meet Guidelines? Yes Comments: N.A. (None Assumed)

(13) **Bicycle & Pedestrian Accommodations**: When bicycle and pedestrian accommodations are used to reduce anticipated traffic volumes, a description of the physical and functional characteristics of the proposed bicycle and pedestrian accommodations shall be provided. If such separate bicycle accommodations (e.g., striped lanes or multi-purpose trails) are anticipated, they shall also be identified. A description of the functional characteristics shall be provided to identify the transportation options that these accommodations provide (e.g., pedestrian access to retail center, safe bicycle route to elementary school, inter-parcel connections to adjacent neighborhoods, access to W&OD trail, etc.)

Does Study Meet Guidelines? Yes Comments: N.A. None Assumed

lmm/
G:\LCG\OTS\FSM Traffic Study Scoping Documents\FSM Checklist for Application (12-07 FSM Revisions).doc